

December 5-11, 2003

<P>The Terra spacecraft is in nominal mode, and all five instruments are operating nominally.</P>

<P>On Sunday, November 30, an anomaly with the Science Formatting Equipment (SFE) on Terra resulted in loss of the MODIS Direct Broadcast (DB) capability. An Anomaly Team isolated the problem to a specific FIFO chip (#116) that may have experienced a single event upset (SEU) as the spacecraft passed through the South Atlantic Anomaly (SAA). Risk analysis was conducted by the former C&DH Subsystem Engineer from the spacecraft manufacturer on the preliminary plan to perform a power recycle of the SFE. This analysis indicates that the risk inherent in the recycle is very low, and this operation has been performed on the SFE on prior occasions after similar SEU-associated incidents. A preliminary Command Authorization Meeting (CAM) to review the entire recycle procedure was conducted on December 9, 2003. There were no issues with the draft plan, and the resulting science data outage as a result of the recycle was estimated at approximately 12 minutes. A decision to proceed with the recycle is expected with concurrence from NASA HQ Code Y on Tuesday, December 16.</P>

<P>The Solid State Recorder (SSR) Anomaly Investigation Team will meet again after resolution of the SFE issue to draft close-out reports on the root cause investigation. A preliminary Command Authorization Meeting (CAM) covering recycle of the Data Memory Unit (DMU) boards was conducted on November 17, 2003. There is NO scheduled date for a DMU recycle at this time. The need for a recycle is not critical, but future PWA losses would increase operational challenges as well as the impetus for a decision on conducting the recycle activity.</P>

<P>On December 9, seven MISR telemetry points flagged red for several seconds and then reverted back to green (normal mode). All seven points were in one telemetry packet. Indications are that the MISR computer may have lost sync briefly during a Local Mode (high-resolution) targeting activity. Analysis of the incident is in progress.</P>

<P><B>Plans:</B>

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The mission operations team will conduct a lunar roll for MODIS calibration on December 13.

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